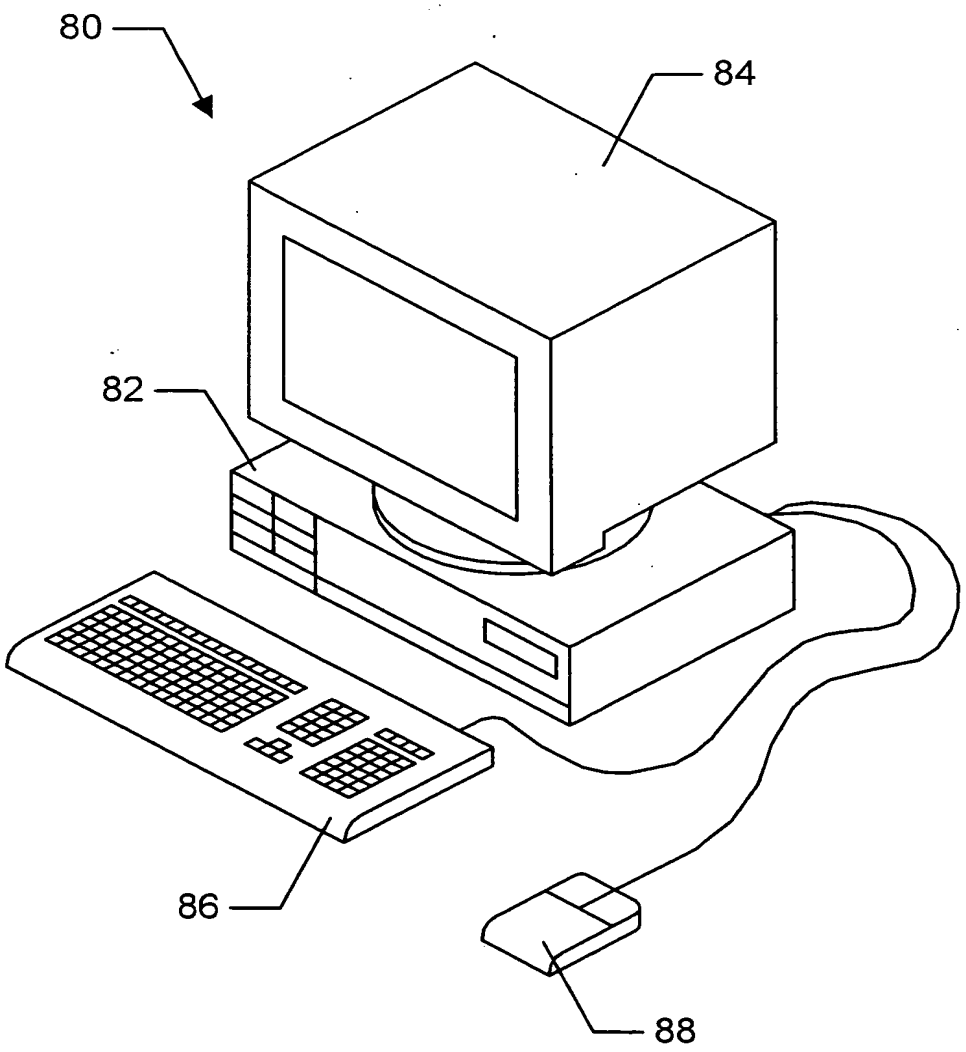

FIG. 1

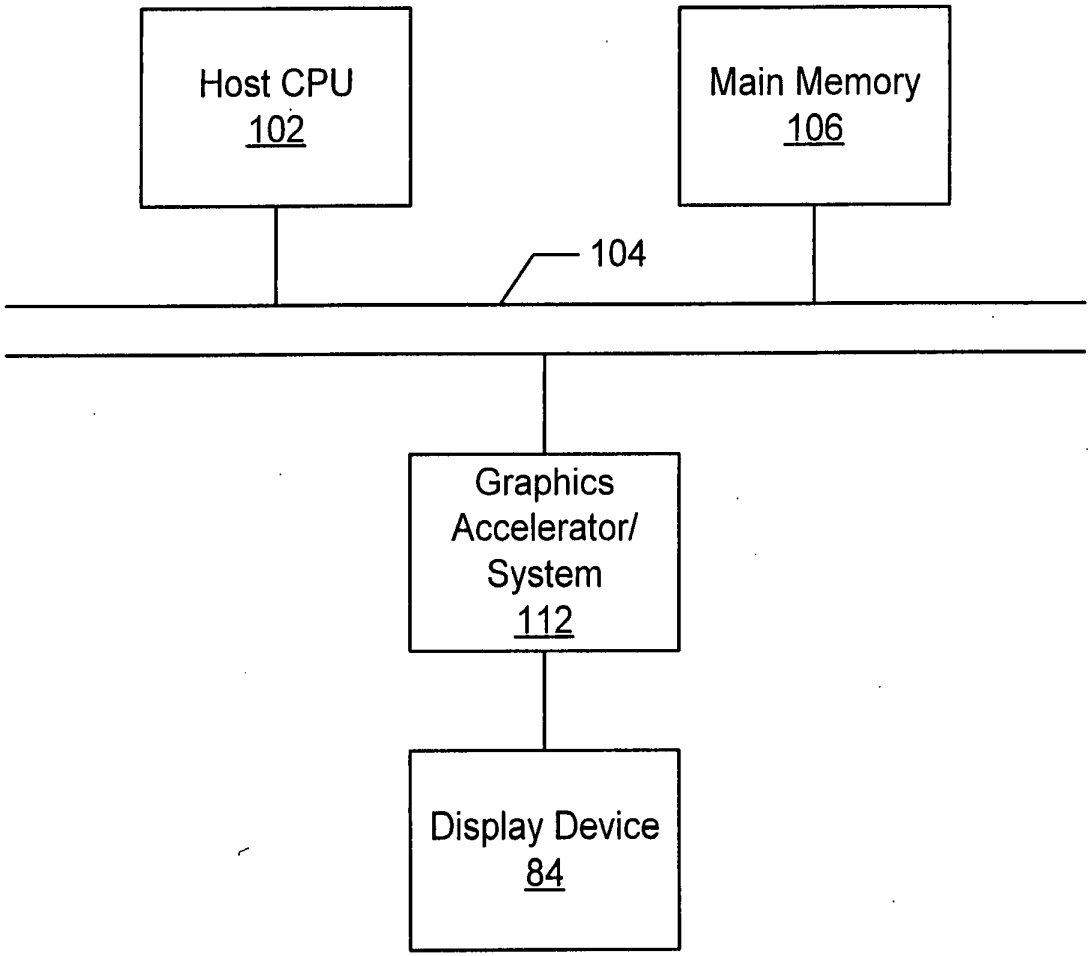
Host CPU
102
Main Memory
106
104
Graphics
Accelerator/
System
112
Display Device
84

FIG. 2

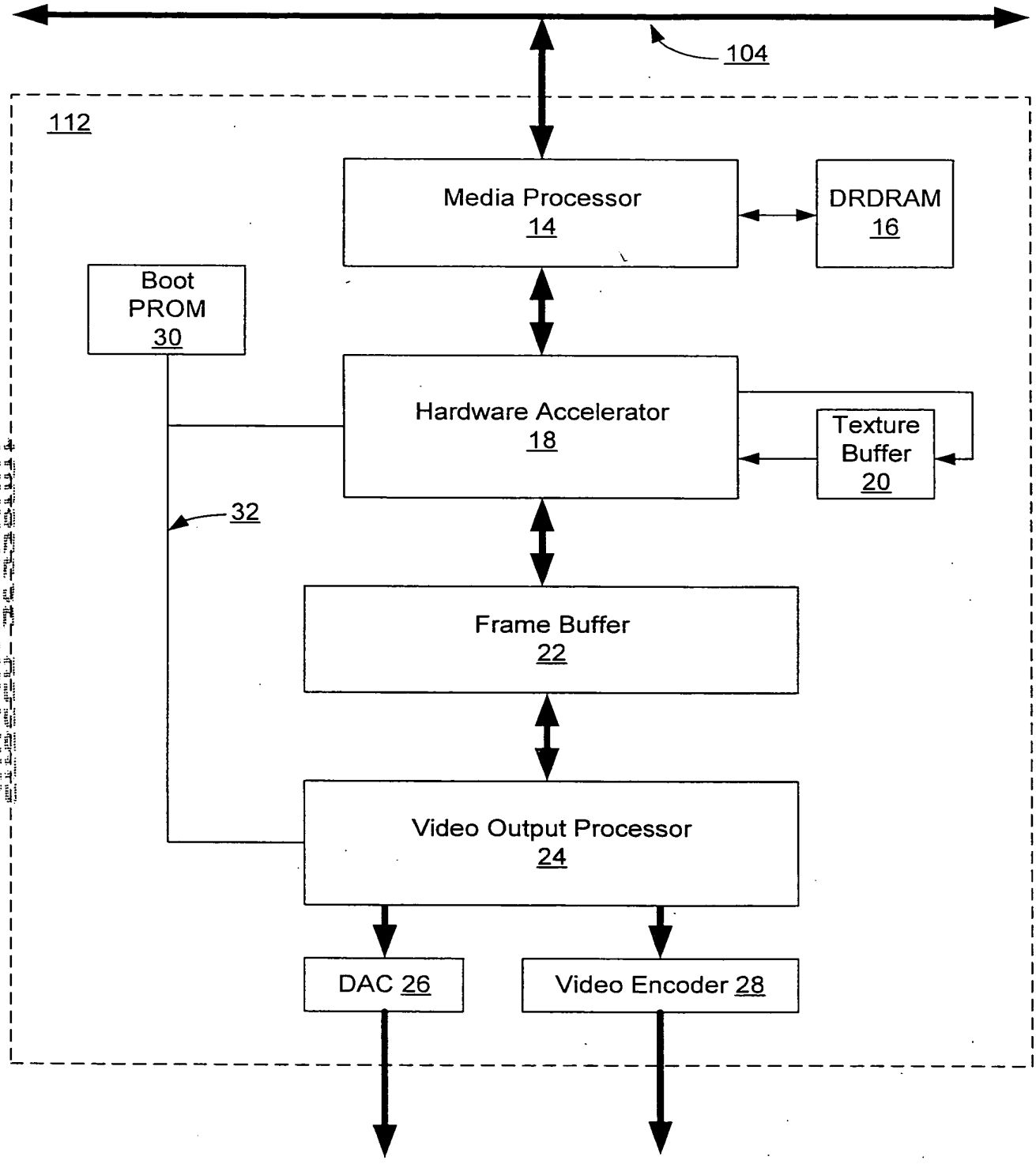
104
112
Media Processor
14
DRDRAM
16
Boot
PROM
30
Hardware Accelerator
18
Texture
Buffer
20
32
Frame Buffer
22
Video Output Processor
24
DAC 26
Video Encoder 28

FIG. 3

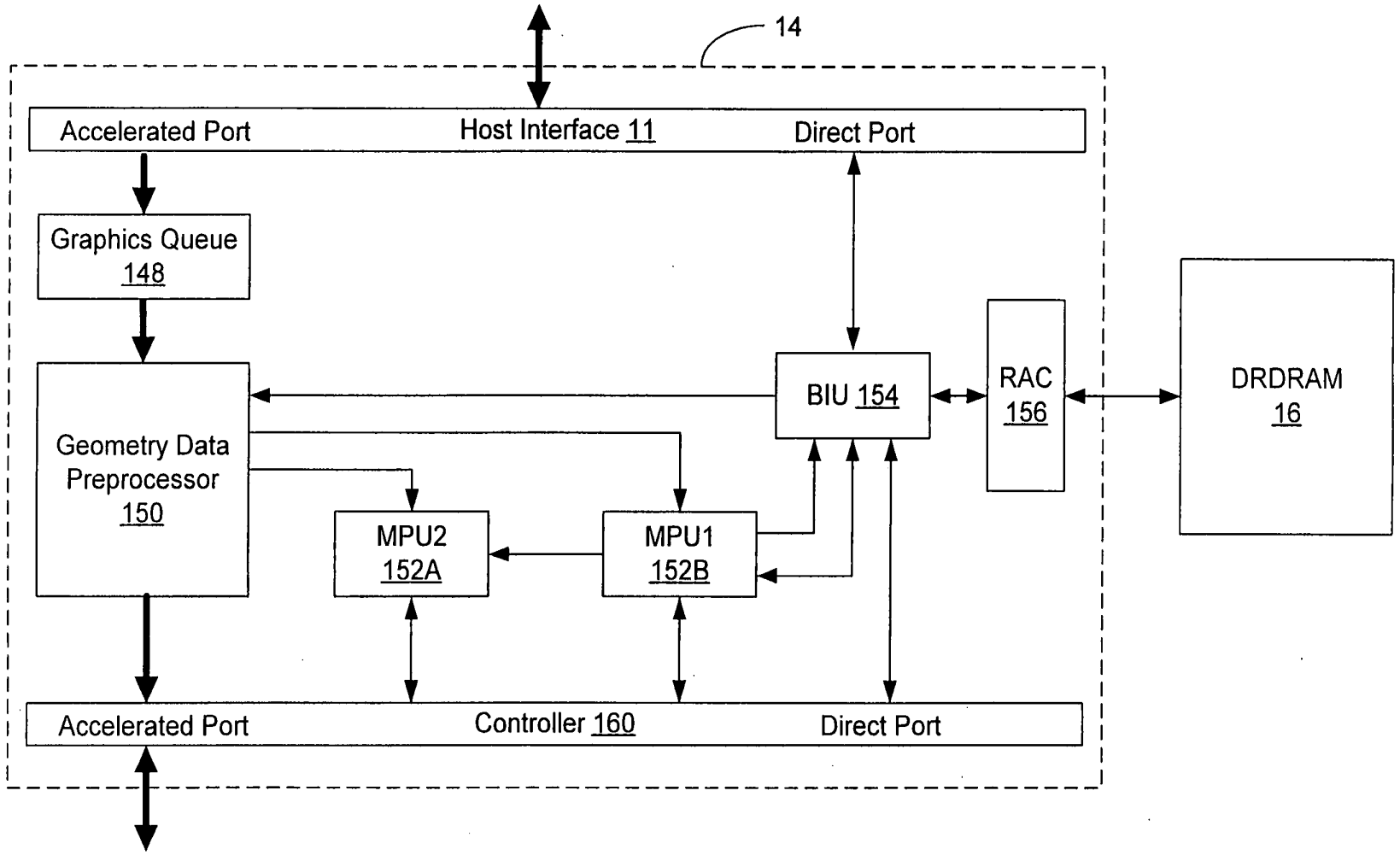
14
Accelerated Port
Host Interface 11
Direct Port
Graphics Queue
148
Geometry Data
Preprocessor
150
BIU 154
RAC
156
DRDRAM
16
MPU2
152A
MPU1
152B
Accelerated Port
Controller 160
Direct Port

FIG. 4

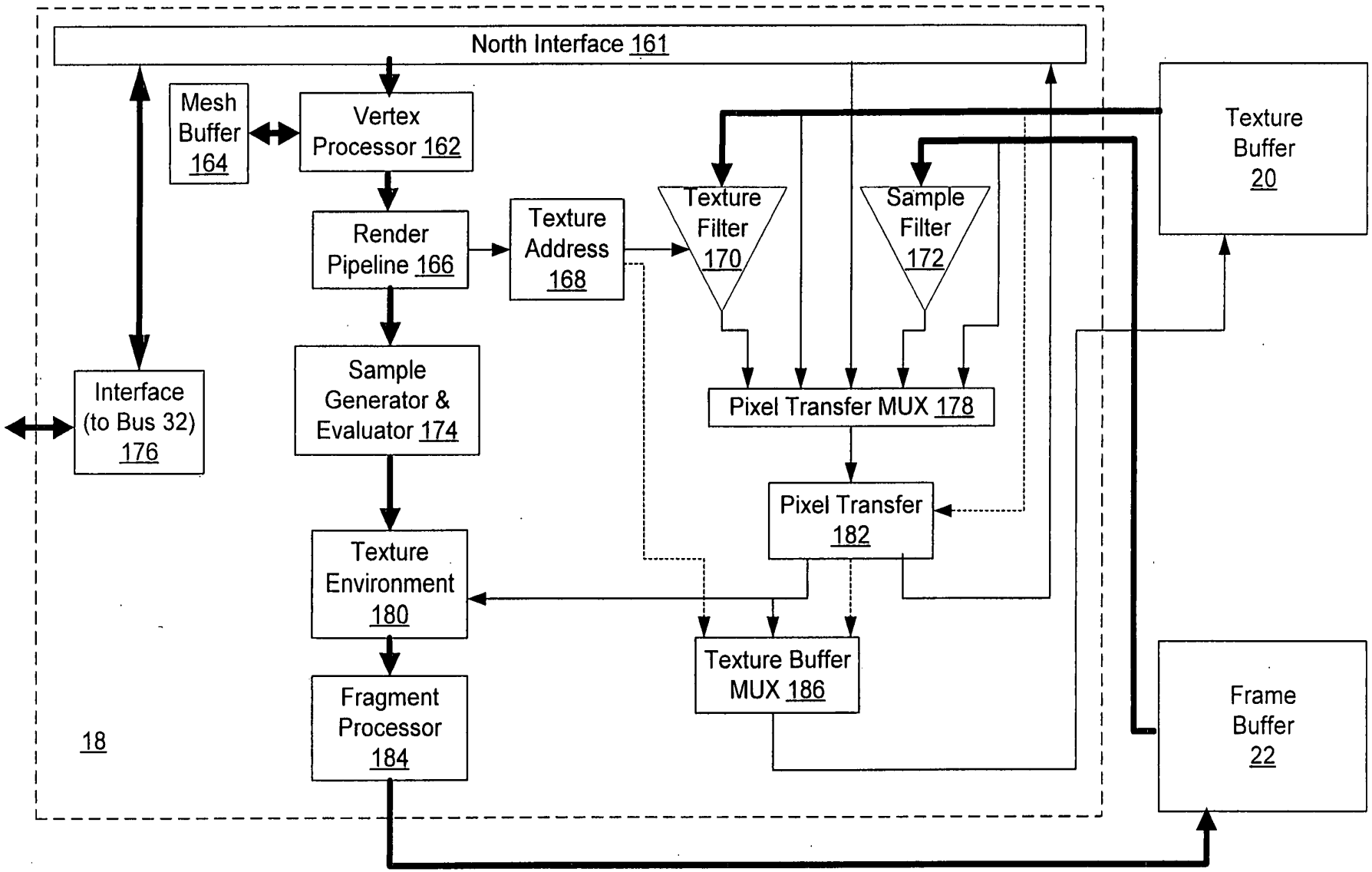
North Interface 161
Mesh Buffer 164
Vertex Processor 162
Render Pipeline 166
Texture Address 168
Texture Filter 170
Sample Filter 172
Texture Buffer 20
Interface (to Bus 32) 176
Sample Generator & Evaluator 174
Pixel Transfer MUX 178
Pixel Transfer 182
Texture Environment 180
Texture Buffer MUX 186
Fragment Processor 184
Frame Buffer 22
18

FIG. 5

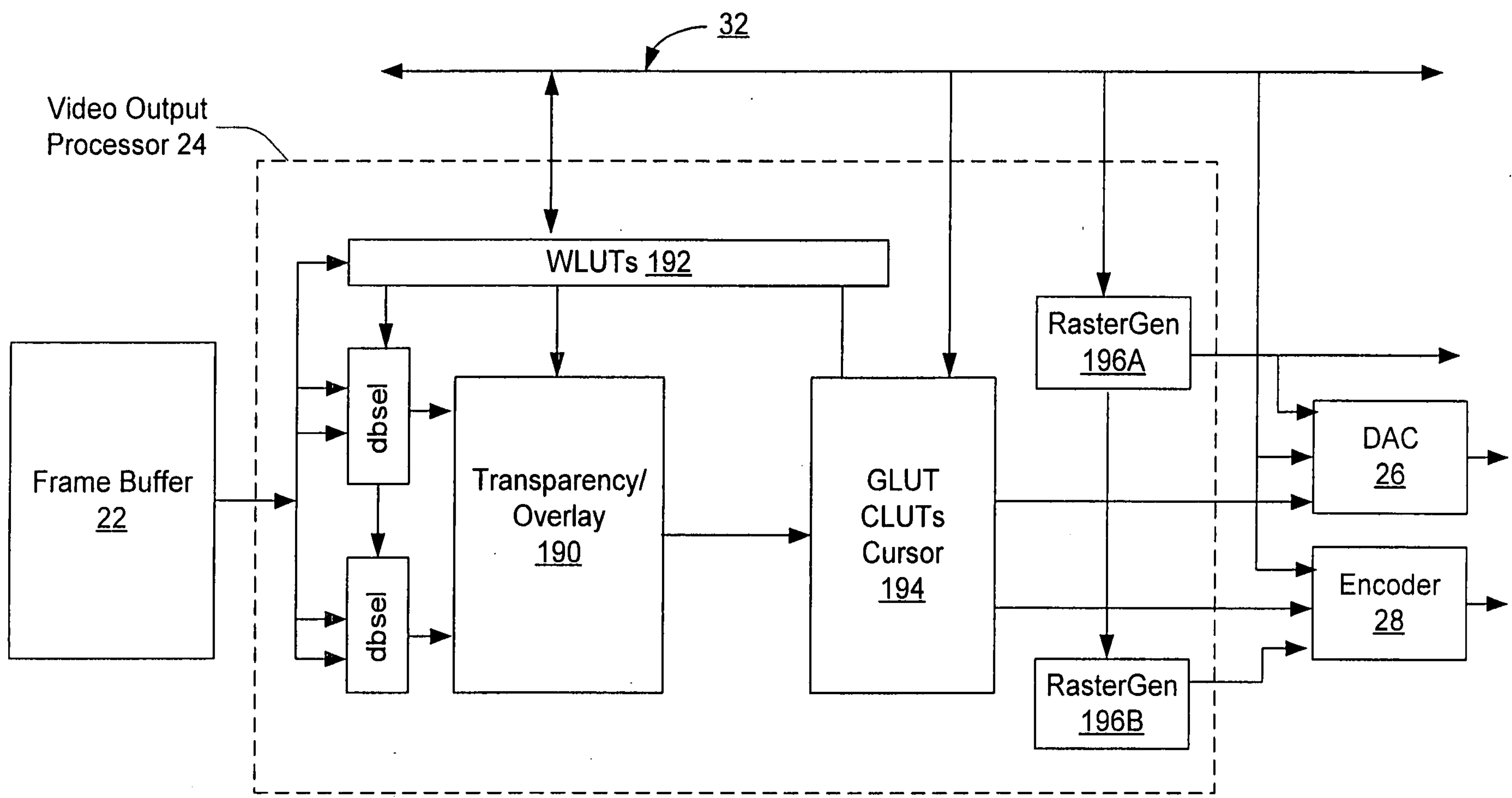
32
Video Output
Processor 24
WLUTs 192
Frame Buffer
22
dbsel
dbsel
Transparency/
Overlay
190
GLUT
CLUTs
Cursor
194
RasterGen
196A
RasterGen
196B
DAC
26
Encoder
28

FIG. 6

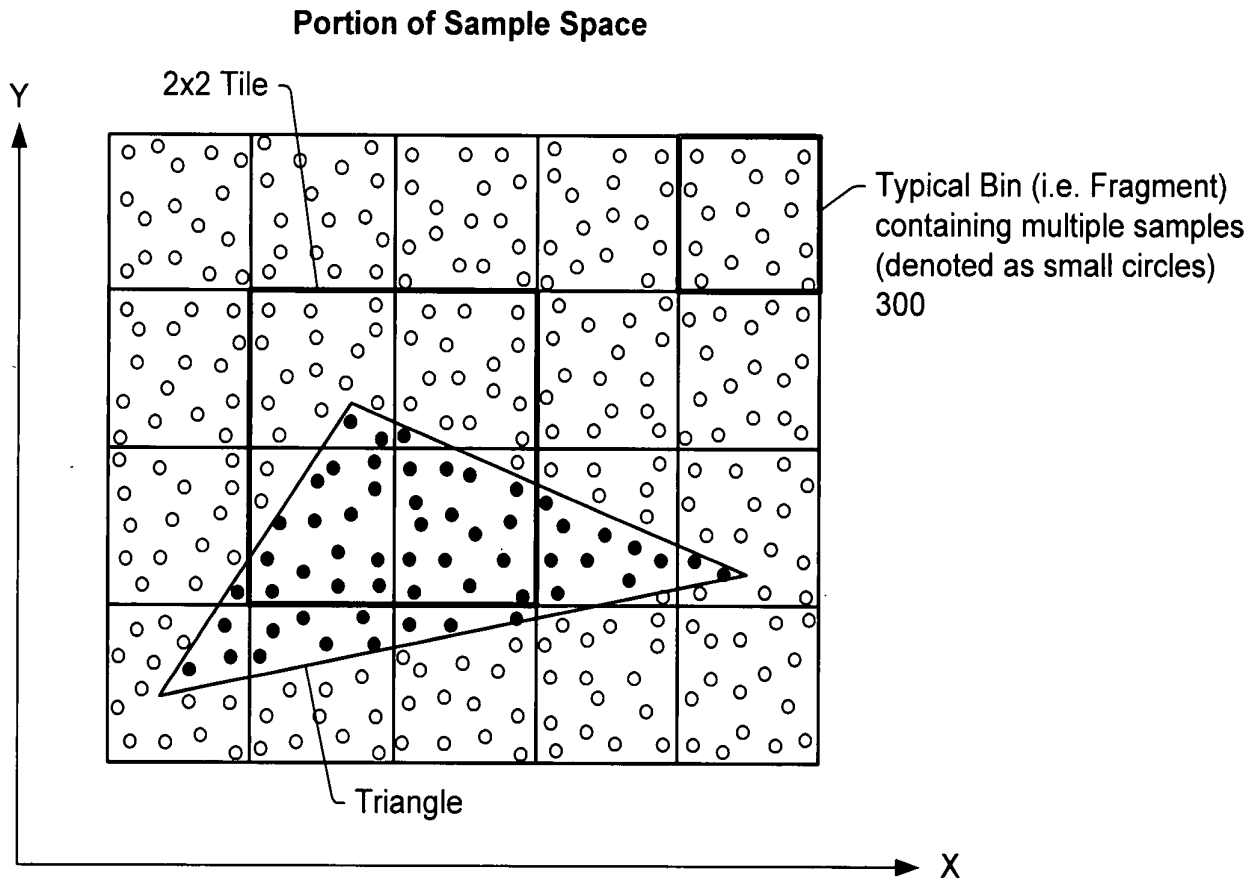
Portion of Sample Space
2x2 Tile
Y
Typical Bin (i.e. Fragment) containing multiple samples (denoted as small circles) 300
Triangle
X

Fig. 7

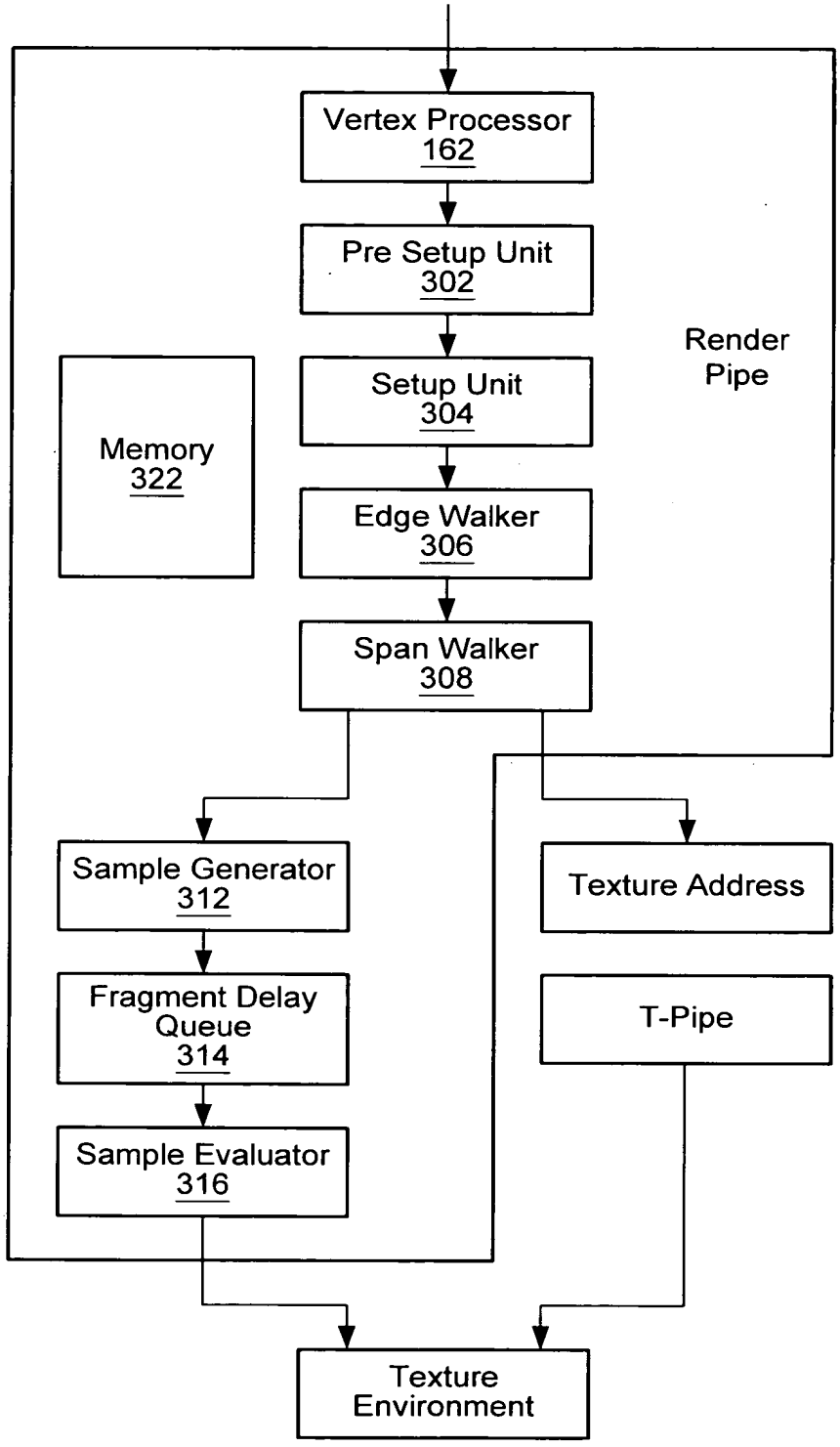
Vertex Processor
162
Pre Setup Unit
302
Render
Pipe
Memory
322
Setup Unit
304
Edge Walker
306
Span Walker
308
Sample Generator
312
Texture Address
Fragment Delay
Queue
314
T-Pipe
Sample Evaluator
316
Texture
Environment

Fig. 8

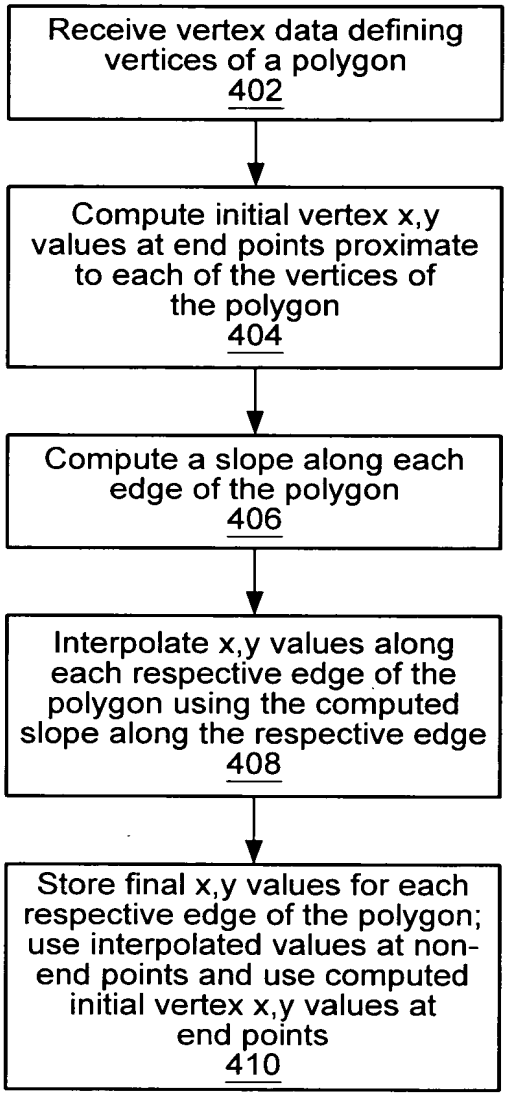
Receive vertex data defining vertices of a polygon
402
Compute initial vertex x,y values at end points proximate to each of the vertices of the polygon
404
Compute a slope along each edge of the polygon
406
Interpolate x,y values along each respective edge of the polygon using the computed slope along the respective edge
408
Store final x,y values for each respective edge of the polygon; use interpolated values at non-end points and use computed initial vertex x,y values at end points
410

Fig. 9

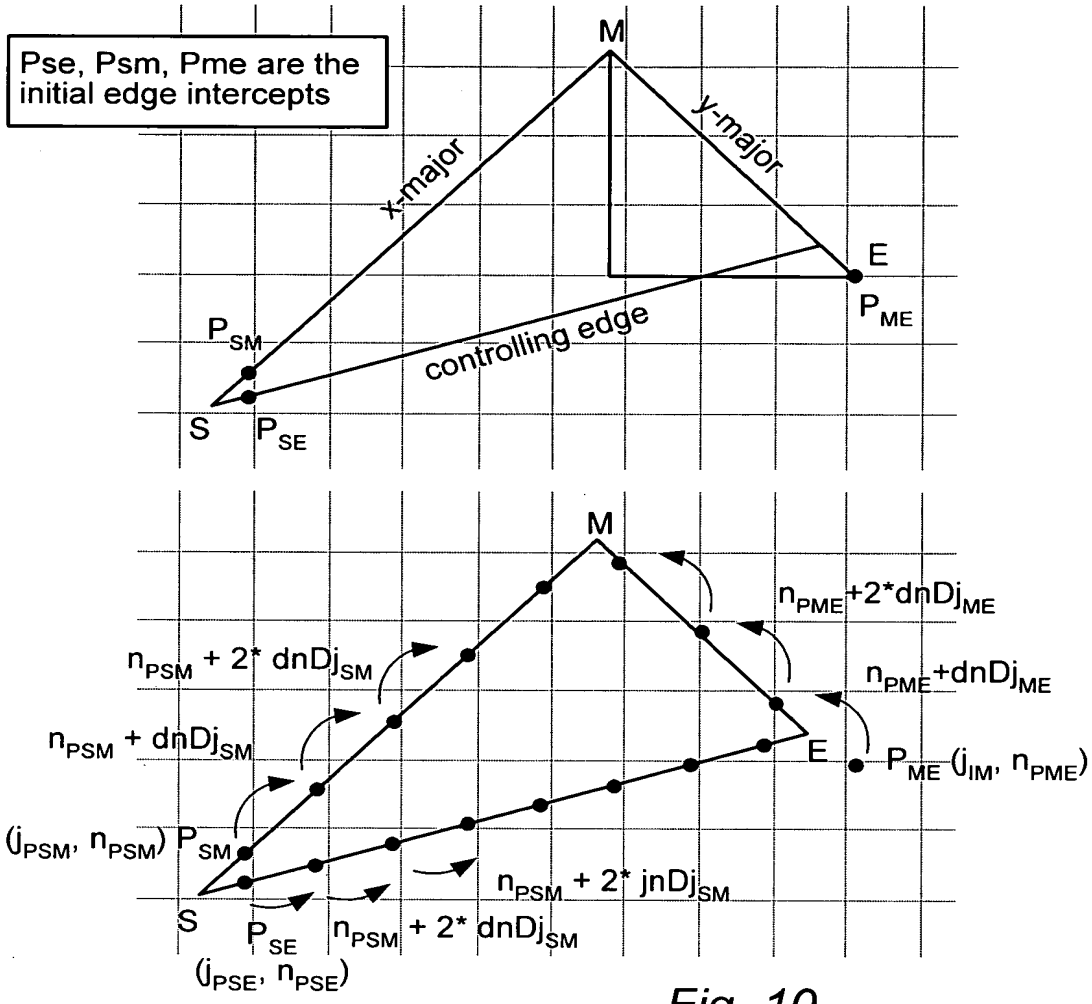
Pse, Psm, Pme are the initial edge intercepts
M
x-major
y-major
E
P_{ME}
P_{SM}
controlling edge
S
P_{SE}
M
n_{PME}+2*dnDj$_{ME}$
n_{PSM} + 2* dnDj$_{SM}$
n_{PME}+dnDj$_{ME}$
n_{PSM} + dnDj$_{SM}$
E
P_{ME} (j_{IM}, n_{PME})
(j_{PSM}, n_{PSM}) P_{SM}
n_{PSM} + 2* jnDj$_{SM}$
S
P_{SE}
n_{PSM} + 2* dnDj$_{SM}$
(j_{PSE}, n_{PSE})

Fig. 10

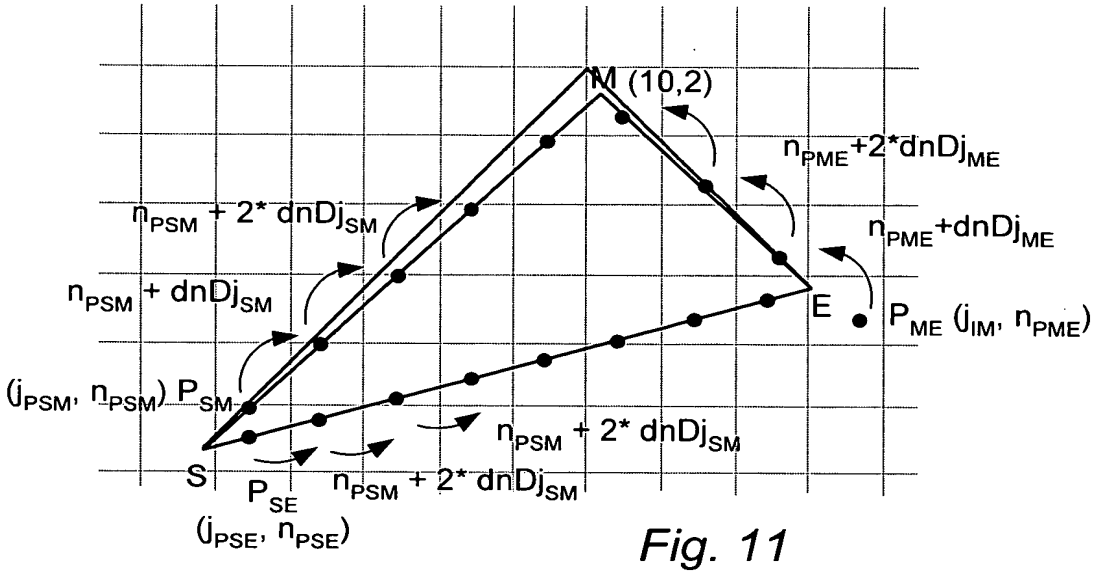
M (10,2)
n_{PME}+2*dnDj$_{ME}$
n_{PSM} + 2* dnDj$_{SM}$
n_{PME}+dnDj$_{ME}$
n_{PSM} + dnDj$_{SM}$
E
P_{ME} (j_{IM}, n_{PME})
(j_{PSM}, n_{PSM}) P_{SM}
n_{PSM} + 2* dnDj$_{SM}$
S
P_{SE}
n_{PSM} + 2* dnDj$_{SM}$
(j_{PSE}, n_{PSE})

Fig. 11